

Jeffrey L. Boore

PERSONAL

Born February 17, 1958, Cumberland, Maryland. Married to Susan I. Fuerstenberg

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CURRENT POSITION

Comparative Genomics Group Leader, DOE Joint Genome Institute (JGI) University of California Biomedical Scientist, Lawrence Berkeley National Laboratory

DUTIES: Develop the comparative genomics program of the JGI and oversee its operation, provide scientific and managerial leadership for the JGI Comparative Genomics Group, serve as a member of the senior management committee of the JGI to provide direction for large-scale sequencing efforts, represent JGI with external organizations and funding agencies, communicate results through scientific publications and presentations, provide training in the methods and concepts of comparative genomics, develop collaborations and manage proposals with researchers outside of the JGI, provide outreach to increase public understanding of genomics

PREVIOUS POSITION

1996-2000, Visiting Research Scientist, University of Michigan Department of Biology

COMPARATIVE GENOMICS GROUP

Permanent staff: Dr. J. Robert Macey (scientist), Dr. Mónica Medina (scientist), H. Matthew Fourcade (senior research associate)

Graduate students (UC Berkeley unless noted): Emina Begovic, David DeGusta, Kevin Helfenbein (University of Michigan), Martin Jaekel, Kirsten Lindstom, Rachel Mueller, Yvonne Vallès (San Francisco State University)

Guest researchers: Dr. Marco Passamonti (University of Bologna, 6 months), Dr. William Eddie (University of Texas, 3 months), Dr. Susan Masta (San Francisco State University), Renfu Shao (University of Queensland, 2 months)

Past members trained / supervised: Professor Axel Meyer (University of Konstanz, 3 months), Inaki Ruiz-Trillo (graduate student, University of Barcelona, 3 months), Professor

Jim Garey (visiting researcher, University of South Florida, 1 week), Professor Eric Knox (visiting researcher, Rutgers University, 3 weeks), Allen Haim (software developer, 9 months), Dr. Marty Wojciechowski (researcher, UC Berkeley, 3 months), Alek Bituin (undergraduate student, UC Berkeley; 3 months)

EDUCATION

1992-96	Postdoctoral training, University of Minnesota
1992	Ph.D., Biology, University of Michigan
1982-84	Graduate study, Wichita State University (non-degree)
1980	B.S., Biology, Pennsylvania State University

COURSE WORK: Areas emphasized include Genetics, Molecular Biology, Biochemistry, Cell and Developmental Biology, Population Genetics, Evolutionary Biology, Genome Evolution, Biology of Invertebrates, and Theory and Methods of Systematics.

GRANTS AND FUNDING

\$201,109. National Science Foundation. P.I. on this subaward from "Wormnet: Reconstructing the Early Evolution of Segmented Annelid Worms", Project Director K.Halanych, total funding \$1,350,000. 9/15/01-9/15/06.

\$404,777. National Science Foundation. P.I. on this subaward from "Comparative Chloroplast Genomics: Integrating Computational Methods, Molecular Evolution, and Phylogeny", Project Director R. Jansen, total funding \$1,350,000. 9/15/01-9/15/06.

\$276,640. Department of Energy. "Mitochondrial Genomics". 10/01/00-10/01/01. \$281,390. Department of Energy. "Evolution of Gene Families". 10/01/00-10/01/01.

\$200,000. National Science Foundation DEB-9807100. "A Phylogeny of Major Metazoan Radiations". 9/01/98-09/01/01. Co-P.I. with Wesley Brown.

\$21,669. Rackham Research Partnership Program. 09/91-09/92.

PROFESSIONAL EXPERIENCE, SERVICE, FELLOWSHIPS, AND HONORS

2001	Editorial Board for Genome Letters
2001	External examiner for dissertion defense of Russell Watkins, Simon-Frazer
	University, Burnaby, British Columbia, Canada
2001	Planning committee for Bay Area Biosystematists Group
2000	Advisory board to the NSF Tree of Life Initiative, Austin, TX, November 2000
1999	Gordon Research Conference Travel Fellowship to Japan
1992-96	NIH Postdoctoral Fellowship, three years, University of Minnesota
1995	NSF-Sponsored Travel Fellowship to Japan
1991	Rackham Dissertation Fellowship, tuition and stipend for one year
1989-91	University of Michigan Competitive Graduate Student Grants, nine awards
1987-90	NIH Genetics Traineeship, tuition and stipend, four years
1976-80	Air Force Reserve Officers Training Scholarship, tuition and stipend, four years

PROFESSIONAL ORGANIZATIONS

Society for Developmental Biology Society for Molecular Biology and Evolution Society for Systematic Biology American Society for Microbiology

PUBLICATIONS

- 1. Hoffmann, R. J., <u>J. L. Boore</u> and W. M. Brown, 1992 A novel mitochondrial genome organization for the Blue Mussel, *Mytilus edulis. Genetics* **131**: 397-412.
- 2. <u>Boore, J. L.</u> and W. M. Brown, 1994 Mitochondrial genomes and the phylogeny of mollusks. *Nautilus* **108** (**suppl. 2**): 61-78.
- 3. <u>Boore, J. L.</u> and W. M. Brown, 1994 The complete DNA sequence of the mitochondrial genome of the Black Chiton *Katharina tunicata*. *Genetics* **138**: 423-443.
- 4. <u>Boore, J. L.</u>, T. M. Collins, D. Stanton, L. L. Daehler and W. M. Brown, 1995 Deducing arthropod phylogeny from mitochondrial DNA rearrangements. *Nature* **376**: 163-165.
- 5. <u>Boore, J. L.</u> and W. M. Brown, 1995 The complete DNA sequence of the mitochondrial genome of the annelid worm *Lumbricus terrestris*. *Genetics* **141:**305-319.
- 6. Yost, H. J., C. R. Phillips, <u>J. L. Boore</u>, J. Bertman, B. Whalen and M. V. Danilchik, 1995 Relocation of mitochondrial RNA to the prospective dorsal midline during *Xenopus* embryogenesis. *Developmental Biology* **170**: 83-90.
- 7. <u>Boore, J. L.</u>, 1996 Ancient patterns of arthropod evolution are recorded in mitochondrial genome rearrangements, *in:* Current Topics on Molecular Evolution: Proceedings of the U.S.-Japan Workshop on Molecular Evolution (M. Nei and N. Takahata, eds.). pp. 69-78.
- 8. <u>Boore, J. L.</u>, 1997 Transmission of mitochondrial DNA—Playing favorites? *Bioessays* **19(9):** 751-753.
- 9. <u>Boore, J. L.</u>, D. Lavrov and W. M. Brown, 1998 Gene translocation links insects and crustaceans. *Nature* **392**: 667-668.
- 10. <u>Boore, J. L.</u>, and W. M. Brown, 1998 Big trees from little genomes: Mitochondrial gene order as a phylogenetic tool. *Curr. Opinion Genet. Dev.* **8(6)**: 668-674.
- 11. <u>Boore, J. L.</u>, L. L. Daehler and W. M. Brown, 1999 Complete sequence, gene arrangement and genetic code of mitochondrial DNA of the cephalochordate *Branchiostoma floridae* ("Amphioxus"). *Mol. Biol. Evol.* **16(3)**: 410-418.
- 12. Boore, J. L., 1999 Animal mitochondrial genomes. Nucl. Acids Res. 27(8): 1767-1780.
- 13. <u>Boore, J. L.</u> and S. I Fuerstenberg, 1999 *Entomoeba histolytica*—A derived mitochondriate eukaryote? *Trends in Microbiology* **7(11)**: 426-428.
- 14. <u>Boore, J. L.</u>, 1999 *Phylogenies derived from rearrangements of the mitochondrial genome.* Proceedings of the International Institute for Advanced Studies Symposium on Biodiversity (N. Saitou, ed.), Kyoto, Japan, pp. 9-20.
- 15. <u>Boore, J. L.</u>, and W. M. Brown, 2000 Mitochondrial genomes of *Galathealinum*, *Helobdella*, and *Platynereis*: Sequence and gene arrangement comparisons indicate that Pogonophora is not a phylum and Annelida and Arthropoda are not sister taxa. *Mol. Biol. Evol.* **17(1)**: 87-106.
- 16. Lavrov, D., <u>J. L. Boore</u> and W. M. Brown, 2000 The complete mitochondrial DNA sequence of the horseshoe crab *Limulus polyphemus*. *Mol. Biol. Evol.* **17(5)**: 813-824.
- 17. <u>Boore, J. L.</u>, 2000 The duplication/random loss model for gene rearrangement exemplified by mitochondrial genomes of deuterostome animals, pp. 133-147 *in* Comparative Genomics (D. Sankoff and J. Nadeau, eds.) Computational Biology Series vol 1, Kluwer Academic Publishers, Dordrecht, Netherlands.

- 18. Lavrov, D., W. M. Brown, and <u>J. L. Boore</u> 2000 A novel type of RNA editing occurs in the mitochondrial tRNAs of the centipede *Lithobius forficatus*. *Proc. Natl. Acad. Sci USA* **97(25)**: 13738-13742.
- 19. Nickisch-Rosenegk, M. von, W. M. Brown and <u>J. L. Boore</u>, 2001 Sequence and structure of the mitochondrial genome of the tapeworm *Hymenolepis diminuta*: Gene arrangement indicates that platyhelminths are derived eutrochozoans. *Mol. Biol. Evol.* **18**(5): 721-30.
- 20. <u>Boore, J. L.</u>, 2001 Complete mitochondrial genome sequence of the polychaete annelid *Platynereis dumerilii*. *Mol. Biol. Evol.* **18(7)**: 1413-1416.
- 21. Helfenbein, K. G., W. M. Brown and <u>J. L. Boore</u>, 2001 The complete mitochondrial genome of a lophophorate, the brachiopod *Terebratalia transversa*. *Mol. Biol. Evol.* **18(9)**: 1734-1744.
- 22. <u>Boore, J. L.</u>, and J. Staton, 2001 The mitochondrial genome of the sipunculid *Phascolopsis gouldii* supports its association with Annelida rather than Mollusca. *Mol. Biol. Evol.* In press.
- 23. Wollscheid-Lengeling, E., <u>J. L. Boore</u>, W. M. Brown, and H. Wägele, The phylogeny of Nudibranchia (Opisthobranchia, Gastropoda, Mollusca) reconstructed by three molecular markers. Submitted to *Organisms*, *Diversity and Evolution*.
- 24. Lavrov, D. V., <u>J. L. Boore</u> and W. M. Brown, Complete mtDNA sequences of two millipedes suggest a new model for mitochondrial gene rearrangements: Duplication and non-random loss. Submitted to *Proc. Natl. Acad. Sci USA*.

MANUSCRIPTS IN PREPARATION

- 25. Helfenbein, K. G., and <u>J. L. Boore</u>, Mitochondrial genomes confirm that lophophorates are eutrochozoans.
- 26. <u>Boore, J. L.</u>, M. Blanchette, D. Lavrov, M. von Nickisch-Rosenegk, L. Rosenberg, I. Ruiz-Trillo, P. Waddell, and W. M. Brown, Metazoan phylogeny deduced from mitochondrial genomes—Conclusions from 12 new invertebrate mtDNAs.
- 27. <u>Boore, J. L.</u>, and L. A. Rosenberg, Complete sequences of two highly rearranged molluscan mitochondrial genomes, those of the scaphopod *Dentalium eboreum* and of the bivalve *Mytilus edulis* ("F-type").
- 28. <u>Boore, J. L.</u>, The complete sequence of the mitochondrial genome of the Chambered Nautilus (Mollusca: Cephalopoda).
- 29. <u>Boore, J. L.</u>, The echiuran *Urechis caupo* has a mitochondrial gene arrangement similar to those of annelid worms.

RESEARCH EXPERIENCE

Main concepts emphasized:

Large-scale sequencing project management, to include database annotation and curation and the supervision of other scientists

Comparative genomics

RNA editing

Comparative molecular biology

Modeling of genome rearrangements

Systematics theory and practice

Phylogenetic analysis of gene rearrangements and of DNA and amino acid sequences

Developmental biology, especially regional specification, axis formation, and intracellular mRNA localization

Comparative developmental biology

Reproductive endocrinology

Labwork proficiency:

Management of a DNA sequencing "factory", to include large-scale creation of DNA libraries with random shearing techniques, and the use of robotic ,computerized colony pickers, liquid handling robots, capillary electrophoresis, and an integrated work flow system for tracking, quality control, assembly, and annotation of genomic sequence

Isolation of DNA, RNA, and protein; electrophoresis; restriction enzyme site mapping PCR, including "Long-PCR" (>16 kb); quantitative PCR, including quantitative RT-PCR

DNA sequencing using ABI 310, ABI 377XL, and MegaBace1000 automated sequencers

Cloning in phage and plasmid vectors; transposon-mediated cloning

Rolling circle amplification techniques

cDNA and genomic library construction / screening

RACE; differential display techniques; autoradiography

Southern, Northern, and Western hybridization; nucleic acid solution hybridization

In situ hybridization and immunohistochemistry

Bacterial culture and selection; radioactive and biohazard material handling and disposal Microscopy, microdissection of embryos, histology

Computer proficiency:

Maintain web database of mitochondrial genomics information

(Accessible from links at http://www.biology.lsa.umich.edu/~jboore)

MacOS, Windows, and UNIX operating systems

ABI suite (e.g. GelDoc, SequenceAnalysis, SequenceNavigator, AutoAssembler)

Sequence analysis software (e.g. MacVector, AssemblyLign, GCG, GDE, Se-Al, ClustalX)

Phylogenetic analysis software (e.g. PAUP*, Phylip, MacClade, MEGA)

Graphics software (e.g. Photoshop, FreeHand, Canvas, Illustrator)

General software (e.g. Excel, PowerPoint, Word, FileMaker Pro)

Web based and modeling tools (e.g. Entrez, Blast, PUMA, RasMol, CN3D)

TEACHING EXPERIENCE

GENETICS, University of Michigan, Teaching Assistant, 1991

DUTIES INCLUDED: Preparing and delivering original, 1.5-hour lectures twice each week on topics of both classical and molecular biology (e.g. calculating gene distances from crossover frequencies, cloning techniques for chromosome walking, and organelle DNA inheritance); developing and grading quizzes and examinations; leading several three-hour genetics laboratory sessions; and instructing students one-on-one throughout the semester in solving problem sets in patterns of inheritance.

EVOLUTIONARY BIOLOGY, University of Michigan, Teaching Assistant, 1990

DUTIES INCLUDED: Preparing and delivering original, one-hour lectures and leading group discussions twice each week on topics such as methods of systematics, the role of ontogeny in evolution and phylogeny reconstruction, history of evolutionary thought, models and mechanisms of speciation and coevolution; developing and grading quizzes and examinations; counseling individual students; and grading term papers.

LABORATORY METHODS INSTRUCTION

I have been responsible for the training and/or supervising of numerous lab members—see list above.

FORMAL TRAINING IN INSTRUCTIONAL METHODS

I served as an Air Force officer for four years after receiving my Bachelor's degree. In preparation for my assignment as an instuctor, I received formal training in teaching theory and methods, including many critiqued exercises. I performed daily instruction both in the classroom and in practical, hands-on settings, teaching such diverse topics as electronics, space physics, and management theory. I wrote hundreds of pages of instructional materials, workbooks, and tests. I completed two military courses in communication, management theory, and political science each judged to be the equivalent of a Master's degree. These experiences have helped me to develop skills in teaching that have continued to be of benefit throughout my work in academia.

LEGAL CONSULTING EXPERIENCE

Expert witness in the case of "People of the State of Michigan vs. Kevin Holtzer", judicial hearing to determine the admissability of mitochondrial DNA forensic evidence in the state of Michigan.

Expert witness in the case of "People of the State of Michigan vs. Kevin Holtzer", trial for the murder of Kaylee Bruce, including the first use of mitochondrial DNA forensic evidence in the state of Michigan.

Expert witness in the case of "People of the State of Maryland vs. Hadden Clark", judicial hearing to determine the admissability of mitochondrial DNA forensic evidence in the state of Maryland.

MILITARY SERVICE

Branch: US Air Force, Air National Guard

Rank: Lieutenant Colonel (retired)

Dates of service October 1980-December 1984 (USAF)

January 1985-August 2000 (ANG)

Aeronautical rating: Senior Navigator

Most recent position: Flight Commander, Chief Navigator

Security clearance: Top Secret

Career Highlights

Flight Commander and Chief Navigator, Selfridge ANGB, MI, 1/98-8/00

Air Command and Staff College, by correspondence, 3/95-5/97

C-130 Navigator, Selfridge ANGB, MI, 1/95-8/00

C-130 Training, Little Rock AFB, AR, 9/94-12/94, Distinguished Graduate

Officer-in-Charge, F-16 Fighter Aircraft Maintenance, Selfridge ANGB, MI, 7/90-8/94, Supervising approx. 100 technicians, Officer-in-Charge for several international deployments

Aircraft Maintenance Officer School, Chanaute AFB, IL, 5/90-6/90, Distinguished Graduate Operated the F-4 Phantom II fighter in its role as an air defense interceptor, Weapon Systems Officer, Tactics Officer, Selfridge ANGB, MI, 8/86-6/90

F-4 Fighter-Interceptor Training, Kingsley Field, OR, 3/86-8/86

Tactical Navigation Training, Mather AFB, CA, 8/85-9/85, "Top Gun" Trophy

Undergraduate Navigator Training, Mather AFB, CA, ATC Commander's Trophy, Ira Husik Memorial Trophy, Distinguished Graduate

Squadron Officers' School, by correspondence, 12/82-3/84

Missile Crew Commander, McConnell AFB, KS, 2/84-11/84, Responsible for a nine-story underground complex, nuclear employment, safety and surety

Missile Launch Officer Instructor, McConnell AFB, KS, 12/82-11/83, Teaching electronics, space physics, management theory, nuclear safety and surety requirements

Deputy Missile Crew Commander, McConnell AFB, KS, 3/82-12/82

Missile Launch Officer Training, Sheppard AFB, TX, Vandenberg AFB, CA, 8/81-3/82

4-year Air Force Scholarship, Pennsylvania State University, 1976-1980

INVITED TALKS / PRESENTATIONS WITH PUBLISHED ABSTRACTS

- Boore, J. L. and W. M. Brown, 1989 Mitochondrial Control Region Sequences and Hominoid Evolution. Keystone Symposium on Molecular Evolution, Lake Tahoe, CA.
- Boore, J. L. and W. M. Brown, 1989 Comparisons of Mitochondrial Control Region Sequences and Implications for Hominoid Phylogeny. Society for the Study of Evolution, Pennsylvania State University, University Park, PA.
- Boore, J. L. and W. M. Brown, 1992 Mitochondrial Genomes and the Evolution of Mollusks. International Congress of Malacology, Siena, Italy—Invited speaker.
- Boore, J. L. and W. M. Brown, 1993 Mitochondrial Genomes and Metazoan Phylogeny. Society for Molecular Biology and Evolution, Irvine, CA.
- Boore, J. L., 1995 Mitochondrial Genome Rearrangements and Metazoan Evolution. Society for Molecular Biology and Evolution, Hayama, Japan—Invited speaker.
- Boore, J. L., 1995 Use of Shared-Derived Molecular Characters for Understanding Metazoan Evolution. US-Japan Workshop on Molecular Evolution, Hayama, Japan—Invited speaker.
- Boore, J. L., 1995 The Pattern of Early Metazoan Diversification as Deduced From Mitochondrial Genome Rearrangements. Evolution of Development: Molecules, Mechanisms, Phylogenetics. Bodega Marine Laboratory (University of California, Davis), Bodega Bay, CA—Invited speaker.
- Boore, J. L. and W. M. Brown, 1996 Mitochondrial Genomes and Metazoan Phylogeny. Society for Molecular Biology and Evolution, Tucson, AZ.
- Boore, J. L., 1997 Mitochondrial Genomics: A tool for determining ancient evolutionary relationships and a model for genome evolution. Center for the Study of Evolution and the Origins of Life, University of California Los Angeles, CA—Invited speaker.
- Brown, W. M., J. L. Boore and D. V. Lavrov, 1997 Mitochondrial Gene Arrangements and Arthropod Phylogeny. Molecules and Morphology in Systematics. Museum national d'Histoire naturelle, Paris, France.
- Boore, J. L. and W. M. Brown, 1997 Gene Rearrangements Trace the Early Evolution of Animals. Molecules and Morphology in Systematics. Museum national d'Histoire naturelle, Paris, France.
- Boore, J. L. and W. M. Brown, 1997 Gene Rearrangements in Early Animal Evolution. Society for Molecular Biology and Evolution, Garmisch-Partenkirchen, Germany.
- Brown, W. M., J. L. Boore and D. V. Lavrov, 1997 Gene Arrangements Prevail When Nucleotides Fail: The Use of Complex, Sequence-Derived Characters to Infer Phylogeny. Society for Molecular Biology and Evolution, Garmisch-Partenkirchen, Germany.
- Boore, J. L., D. V. Lavrov and W. M. Brown, 1998 Mitochondrial Gene Rearrangements Trace Metazoan Phylogeny. Society for Integrative and Comparative Biology, Boston, MA—Invited speaker.
- Boore, J. L., D.V. Lavrov and W. M. Brown, 1998 Deducing Metazoan Phylogeny by Gene Arrangement Comparisons. Society for Molecular Biology and Evolution and the Society for the Study of Evolution, Vancouver, British Columbia, Canada.
- Lavrov, D.V., J. L. Boore and W. M. Brown, 1998 Mitochondrial Genomes and Arthropod Phylogeny. Society for Molecular Biology and Evolution and the Society for the Study of Evolution, Vancouver, British Columbia, Canada.

- Helfenbein, K., J. L. Boore and W. M. Brown, 1998 The Mitochondrial Genome of the Brachiopod *Terebratella*. Society for Molecular Biology and Evolution and the Society for the Study of Evolution, Vancouver, British Columbia, Canada.
- Boore, J. L., 1998 Beyond linear sequence comparisons—The use of complex genomic features for inferring phylogeny. Institute for Advanced Studies, Kyoto, Japan—Invited speaker.
- Boore, J. L., K. G. Helfenbein, D. V. Lavrov, L. A. Rosenberg and W. M. Brown, 1999 Mitochondrial Genomics. American Genetics Association, Pennsylvania State University, University Park, PA.
- Boore, J. L., K. G. Helfenbein, D. V. Lavrov, L. A. Rosenberg and W. M. Brown, 1999 Mitochondrial Gene Rearrangements and Metazoan Phylogeny. Society for the Study of Evolution, University of Wisconsin, Madison, WI.
- Lavrov, D. V., J. L. Boore and W. Brown, 1999 Arthropod phylogeny based on gene arrangement and other characters from mitochondrial DNA. Society for the Study of Evolution, University of Wisconsin, Madison, WI.
- Helfenbein, K., J. L. Boore and W. Brown, 1999 Complete Mitochondrial Genome Sequence of the Brachiopod *Terebratalia transversa*. Society for the Study of Evolution, University of Wisconsin, Madison, WI.
- Boore, J. L., K. G. Helfenbein, D. V. Lavrov, L. A. Rosenberg and W. M. Brown, 1999 Mitochondrial Genomics. Society for Molecular Biology and Evolution and the Genetics Society of Australia, Brisbane, Australia. Along with David Mindell, I hosted a symposium with the same name.
- Lavrov, D. V., J. Boore and W. Brown, 1999 Arthropod phylogeny based on gene arrangement and other characters from mitochondrial DNA. Society for Molecular Biology and Evolution and the Genetics Society of Australia, Brisbane, Australia (Lavrov won the "Best Student Paper" award).
- Boore, J. L., K. G. Helfenbein, D. V. Lavrov, L. A. Rosenberg, M. von Nickisch-Rosenegk and W. M. Brown, 1999 Mitochondrial Genomics. Gordon Conference on Molecular Evolution, Graduate Institute for Advanced Studies, Hayama, Japan.
- Boore, J. L., 1999 The primordial partnership that produced the Eukarya—Endosymbiosis and the evolution of mitochondria. Joint Genome Institute, Walnut Creek, CA—Invited speaker.
- Boore, J. L., 2000 Lessons for genomics learned from mitochondrial genome comparisons. Department of Energy Genomics Meeting, Santa Fe, NM—Invited speaker.
- Boore, J. L., 2000 Lessons for genomics learned from mitochondrial genome comparisons. Wayne State University, Detroit, MI—Invited speaker.
- Boore, J. L., 2000 Mitochondrial Genomics. University of California, Riverside, CA—Invited speaker.
- Boore, J. L., 2000 Mitochondrial Genomics. University of Wisconsin, Madison, WI—Invited speaker.
- Boore, J. L., 2000 Metazoan phylogeny and genome evolution. Texas A&M University, College Station, TX—Invited speaker.

- Boore, J. L., 2000 Mitochondrial genomics—A model for genome evolution. Meeting on Gene order dynamics, comparative mapping and multigenefamilies (DCAF), near Montreal, Canada—Invited speaker.
- Boore, J. L., 2000 Beyond linear sequence comparisons—Genome level characters for inferring metazoan phylogeny. Annual meeting of the Italian Society for Zoology, San Benedetto del Tronto, Italy—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute. Lawrence Livermore National Laboratory—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute. University of California, Berkeley—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute. University of California, Davis—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute. Iowa State University, Ames, IA—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute. Special meeting of the Bay Area Biosystematists—Invited speaker.
- Boore, J. L., H. Matthew Fourcade, Allen Haim, Kevin G. Helfenbein, J. Robert Macey, Susan E. Masta, Mónica Medina, Marco Passamonti, Daniel Rokhsar, and Iñaki Ruiz-Trillo, 2001 Sampling Animal Diversity with Mitochondrial Genomics. Cold Spring Harbor Laboratory meeting on "Genome Sequencing and Biology" (poster presentation).
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute—Molecular Evolution at 20 Million Nucleotides per day. Institute for Theoretical Physics, Santa Barbara, CA—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute—Molecular Evolution at 20 Million Nucleotides per day. Lawrence Livermore National Laboratory Program Series—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute—Molecular Evolution at 20 Million Nucleotides per day. Simon-Fraser University, Burnaby, Canada—Invited speaker.
- Boore, J. L., 2001 Comparative Genomics at the Joint Genome Institute—Molecular Evolution at 20 Million Nucleotides per day. Annual meeting of the Society for the Study of Evolution, Knoxville, TN.